Attorney Docket No. 5051.6161P Application Serial No.: 09/997,664

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The following list of claims will replace all prior versions and listings of claims in the application.

LIST OF CLAIMS

- 1-11. (Canceled).
- 12. (Currently amended) A method for the production of p-hydroxybenzoate, the method comprising:
 - (a) contacting a transformed <u>bacterial</u> host cell with a medium comprising,
 - of: toluene, p-cresol, p-hydroxybenzyl alcohol, p-hydroxybenzaldehyde, and aromatic compounds degraded by the toluene -monooxygenase enzyme pathwaythat are similar in chemical structure to toluene and the intermediates of the toluene monooxygenase pathway,
 - (ii) at least one fermentable carbon substrate, and
 - (iii) a nitrogen source;

wherein the transformed host cell is (1) lacking a p-hydroxybenzoate hydroxylase activity, and (2) comprises genes encoding toluene-4-monooxygenase, TmoX, PcuR, p-cresol methylhydroxylase, TmoST polypeptides and p-hydroxybenzoate dehydrogenase activities, each gene being operably linked to suitable regulatory sequences;

- (b) incubating the transformed host cell for a time sufficient to produce phydroxybenzoate; and
- (c) optionally recovering the p-hydroxybenzoate produced in (ii)(b).
- 13. (Previously presented) The method of Claim 12 wherein the fermentable carbon substrate is selected from the group consisting of monosaccharides, oligosaccharides,

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polysaccharides, carbon dioxide, methanol, formaldehyde, formate, and carbon-containing

amines.

14. (Previously presented) The method of Claim 12 wherein the fermentable carbon

substrate is glucose.

15. (Previously presented) The method of Claim 12 wherein the transformed host cell

is selected from the group consisting of Pseudomonas, Burkholderia, Acinetobacter, and

Agrobacterium.

16. (Previously presented) The method of Claim 12 wherein the aromatic organic

substrate is present in the medium in a concentration of less than 500 ppm.

17. (Previously presented) The method of Claim 12 wherein the aromatic organic

substrate is present in the medium from 30 ppm to 60 ppm.

18. Canceled.

19. (Previously presented) The method of Claim 12 wherein the transformed host cell

comprises plasmid pMC4 as shown in Figure 4.

20. (Canceled) The method of Claim 12 wherein the transformed host cell further

comprises the genes encoding TmoST activity.